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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,545	12/30/2000	Christopher J. Spiegel	042390P10597	7429

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EXAMINER

CHEN, TE Y

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,545

Applicant(s)

SPIEGEL, CHRISTOPHER J.

Examiner

Susan Y Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 31-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This is in response to amendment filed on 05/12/2004.

Claims 31-60 are pending for examination, claims 31, 39, 41, 49, 51 and 59 have been amended.

Claim Objections

Claims 49 and 59 are objected to because of the following informalities:

As to claim 49, this claim has been amended via the file dated 05/12/2004, thus, the status label should be changed accordingly.

As to claim 59, there is a mistyping of the term "copya", it should be change to "copy a".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 31-60 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,622,200 issued to Hasbun et al.

The applied reference has a common assignee and at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claims 51, Hasbun et al. discloses a data storage system as claimed by applicant [e.g., Title, Abstract, Fig(s). 1-2, 5-27], comprising:

- a) a processor [e.g., 110, Fig. 1];
- b) a memory coupled to the processor [e.g., 160, 170, 180, Fig. 1];
- c) a machine executable code, when executed the processor from the memory causes a data object manager [e.g., the Flash Memory Manager (FMM), col. 6, lines 20 – 31] to:

1) receive an instruction for updating a file having a plurality of fragments stored in the memory, the instruction including changed data for updating a first

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fragment of the file [e.g., col. 5, lines 62 – 65; col. 6, lines 33-41; Fig. 14 and associated texts];

2) create a second fragment based on the first fragment and the changed data, the second fragment representing an updated version of the first fragment [e.g., the step 1420, Fig. 14 and associated texts; col. 15, line 64 – col. 16, line 20];

3) copy a first table associated with the first fragment to form a second table [e.g., the steps: 2710-2724, Fig. 27 and associated texts], the second table having a handler reference the second fragment [e.g., the steps 1418, Fig. 14; col. 16, lines 1-22];

4) delete the first fragment when the creating and copying operations are completed [e.g., the steps 1434 – 1470, Fig. 14; col.16, lines 30-43];

5) process further accesses to the deleted first fragment using the second fragment via the second table [e.g., the first fragment restoration and track back processing at steps 1468-1470, Fig. 14 and associated texts; Fig. 37 and associated texts].

As to claim 52, except all the features cited in claim 51, Hasbun further discloses that the data object manager further marks via the first table, the first fragment as invalid while the creating and compying operations are being performed [e.g., the marking processing of Fig. 14 and Fig. 23].

As to claim 53, except all the features cited in claim 52, Hasbun further discloses that the data object manager further to:

- a) determine whether the instruction has been cancelled before the creating and copying operations are completed [e.g., the steps 1434-1450; col. 16, lines 23-49];
- b) mark the first fragment as valid if instruction has been cancelled before the creating and copying operations are completed [e.g., 1460, Fig. 14; col. 16, lines 34-39];
- c) delete the second fragment and the second table after marking the first fragment as valid [e.g., steps 2350-2390, Fig. 23 and associated text].

As to claim 54, except all the features cited in claim 51, Hasbun further discloses that the data object manager further deletes the first table when the creating and copying operations are completed [e.g., the step 2734, Fig. 27].

As to claim 55, except all the features cited in claim 51, Hasbun further discloses that the data object manager further marks, via the second table, the second fragment as a backup copy of the first segment while the creating and copying operations are being performed [e.g., the step 2820, Fig. 28].

As to claim 56, except all the features cited in claim 55, Hasbun further discloses that the data object manager further un-marks the second fragment as the backup copy of the first segment after the creating and copying operations are completed [e.g., the steps 2360-2364, Fig. 23].

As to claim 57, except all the features cited in claim 51, Hasbun further discloses that the copying of the first table comprises writing the handle into a replacement entry [e.g., Fig. 10 and associated text].

As to claim 58, except all the features cited in claim 57, Hasbun further discloses that writing the handle comprises marking a handle pointing to the first fragment as invalid and marking the handler pointing to the second fragment as valid [e.g., Fig. 11 and associated text].

As to claim 59, Hasbun discloses all the features as claimed, comprising:

- a) a processor [e.g., 110, Fig. 1];
- b) a memory coupled to the processor [e.g., 160, 170, 180, Fig. 1];
- c) a machine executable code, when executed the processor from the memory causes a data object manager [e.g., the Flash Memory Manager (FMM), col. 6, lines 20 – 31, FMM architecture] to:

1) receive an instruction for updating a file having a plurality of fragments stored in the memory, the instruction including changed data for updating a first fragment of the file [e.g., col. 5, lines 62 – 65; col. 6, lines 33-41; Fig. 14 and associated texts];

2) create a second fragment based on the first fragment and the changed data, the second fragment representing an updated version of the first fragment [e.g., the step 1420, Fig. 14 and associated texts; col. 15, line 64 – col. 16, line 20];

3) copy a first table associated with the first fragment to form a second table [e.g., the steps: 2710-2724, Fig. 27 and associated texts], the second table having a handler reference the second fragment [e.g., the steps 1418, Fig. 14; col. 16, lines 1-22];

4) delete the first fragment when the creating and copying operations are completed [e.g., the steps 1434 – 1470, Fig. 14; col.16, lines 30-43];

5) create a copy for each of the plurality tables in the first chain to form a second chain, each of the copied table having a handle pointing to the next copied table in the second chain [e.g., 1420, Fig. 14; the read next object processing, Fig. 29; Fig(s). 19-29 and associated texts].

6) replace the first chain with the second chain [e.g., the step 1468-1470, Fig. 14; Fig(s). 19-29 and associated texts]

7) delete the first chain [e.g., the steps 1434 – 1470, Fig. 14; Fig(s). 19-29 and associated texts].

As to claim 60, except the features disclosed in claim 59, Hasbun further discloses that the tables in the chains is hierarchically ranked at a different level and each table is capable of associating with one or more tables in the respective chain via one or more handles respectively [e.g., the unit 512, Fig. 5; col. 29, lines 35-40; Fig.(s) 18 and 24 and associated texts].

As to claims 31-50, these claims recite the same subject matter in form of method and machine-readable medium product, therefore are rejected for the same reason.

Response to Arguments

Applicant's arguments filed on 05/12/2004 have been fully considered but they are not persuasive.

The examiner disagrees with applicant's arguments under 35 U.S.C. 102(e) rejection. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a second table is formed by copying the content from the first table associated with the first fragment, where the second table references the second fragment) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, Hasbun clearly discloses the claimed features as discussed above. In addition, even if the features upon which applicant relies were cited in claims, they are read by the steps disclosed in Fig(s). 19-29 of Hasbun's and associated texts.

Conclusion

To expedite the process of re-examination, the examiner requests that all future correspondence in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set forth by the Examiner prior to the office action, that applicant should provide and link to the most specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Treynor (U.S. Patent No 5,822,759) which discloses a cache system with means and products to manage cache memory via linked lists by adding segments of newly requested data and deleting data having lowest scores.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Y Chen whose telephone number is 571-272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Y Chen
Examiner
Art Unit 2161

December 3, 2004



UYEN LE
PRIMARY EXAMINER